

ORDER

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

8260.16

7/25/69

SUBJ: AIRPORT OBSTRUCTION SURVEYS

1. PURPOSE. This Order provides procedures for obtaining Airport Obstruction Surveys relating to **ILS** installations.
2. REFERENCES:
 - a. Handbook **8260.3**, "U.S. Standard for Terminal Instrument Procedures (**TERPS**)."
 - b. Handbook **AF P 6750.11**, 'Siting Criteria for Instrument Landing Systems."
 - c. Order **6750.8**, "Changes to **ILS** (Category I) Establishment Procedures and Concepts."
 - d. AC **120-20**, "Criteria for Approval of Category II Landing Weather Minima."
3. DISCUSSION. The Approach and Landing Aids Committee was established at FAA Headquarters for the primary purpose of developing a program to provide approach and landing aids at air carrier turbojet airports to achieve lower minimums and to provide precision vertical and lateral guidance. This Committee is chaired by R&D and represented by all FAA operating Services. The initial result of this effort was a report recommending changes in concepts and procedures for the installation of the Mark I **ILS**. This recommendation was concurred in by **DA-1** and forwarded to the various regions by **RD-1** memorandum, dated **15 December 1967**. One of the considerations for minimizing **ILS** siting costs was the reduction in Airway Facilities Division survey requirements, and maximum use of the Coast and Geodetic Survey (**C&GS**) airport obstruction chart (CC) program. Funds to survey the approach and missed approach areas for all **ILS** assignments have, therefore, been minimized in the **ILS** establishment costs.
4. PROCEDURES. Coast and Geodetic Survey and/or FAA surveys will be made on **ILS** runways to the extent necessary for approval of safe flight operations;

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Distribution: **8260; FAF-0 (1-5); FFS-4 (Standard);**
FAT-O (1-25); FFS-1,2,3,5(1-25);
FAS-1(1-10); M-AF/FS-AT-3

Initiated by: **FS-730**

obstructions determination of **ILS** Category I landing minima, **VASI** siting, etc. Charts made from these surveys will show the controlling obstructions, but may not depict all obstacles that penetrate the **ILS** final approach, missed approach **and transitional** surfaces contained in Handbook 8260.3 (TERPS) when a controlling obstruction requires a **DH** greater than **200' height** above **TDZ** (MT). When airport sponsors or user organizations desire a reduction in landing minima (**DH**) that are higher than **200' HAT**, it will be the proponents responsibility to provide the FAA with detailed surveys to **determine** the extent of obstruction removal required to achieve the lower value.

Coast and Geodetic Survey **OC's** will be the primary source of obstacle data supplemented, only as required, by surveys conducted by the Airway Facilities Division. Close coordination between the Flight Standards and Airway Facilities Divisions will be required to keep FAA survey work to a minimum.

5. ***** The following procedures should be followed in obtaining obstruction data for **ILS** and **VASI**.
 - a. Obtaining Coast and Geodetic Survey Charts. An FAA coordinator for determining **C&GS OC** requirements has **been** established in each region. Regional requirements shall be consolidated by the coordinator and forwarded to **AT-400**. The **OC** program should include the requirements of all divisions; however, Flight Standards requirements for determining **ILS** landing minima, both for planning **ILS** locations and publication of procedures, must be given appropriate priority.
 - b. Airway Facilities Division Survey Requirements. Where conditions arise, due to urgency or impracticability of utilizing the **C&GS** team, the survey work should be accomplished by the Airway Facilities Division. If F&E and Operations appropriations are not adequate to accomplish this work, reprogramming of funds shall be initiated,
 - c. **ILS Category I Missed Approach Segment.** The Coast and Geodetic Survey **OC** does not depict the Category I **ILS** missed approach areas; however, obstacles penetrating missed approach imaginary surfaces are charted since other surfaces are more restrictive.

ILS missed approach areas beyond the confines of the **OC** will require plotting on topographic type charts. The Airway Facilities Division will assist in plotting these areas and survey specific obstacles as requested by the Flight Standards **Division**.

- d. ILS Category II Candidate Runways. The FM regions will make detailed studies of all available obstruction data. This shall include **C&GS OC's**, engineering drawings of FAA air navigation aids, control towers, runway lights, **etc.** When it is determined **that** additional survey information is required to approve **ILS** Category II landing minima or determine obstruction removal requirements (AC **120-20**, Appendix **3**), the survey shall be provided by the airport sponsor.
- e. Assistance to Airport Sponsor. Since operational requirements for obstruction clearance vary with **commissioned** glide slope angles and with **ILS** Category I **and** Category II landing minima, the Flight Standards Division shall define obstruction survey requirements to assist airport sponsors.
- f. Procedure for Future **ILS** Installations.
- (1) Submit **OC** survey requirements to **AT-400** through the regional coordinator. The request shall include date survey must be available.
 - (2) **AT-400** relays requirements to **C&GS**. When **C&GS** cannot provide survey in time allotted, the region will be advised.
 - (3) Airway Facilities Division initiates action on Form **2635** for funds when required to perform surveys.
 - (4) When existing **OC's** are utilized, Airway Facilities Division shall confirm the obstruction slope (**TERPS** paragraphs **932** and **933**) by sweeping the final approach area by instrument.
 - (5) Flight Standards Division shall develop instrument approach procedures based on the above data and confirm controlling obstructions during commissioning flight check.
 - (6) Precision instrument landing minimums shall not be published without survey data of obstacles in the **ILS** final approach area and missed approach area Section **1**. Commissioning of **ILS** facilities, including the glide slope component, shall not be delayed pending receipt of survey data. In the interim, **localizer** minima (glide slope inoperative) shall be used for the full **ILS** until adequate survey obstruction data has been obtained,


Associate Administrator for Operations

